

SEQUENCE LISTING

<110> St. Jude Children's Research Hospital  
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Webby, Richard J  
Ozaki, Hiroichi

<120> Improved Method for Generating Influenza Viruses and Vaccines

<130> SJ-02-0016

<160> 6

<170> PatentIn version 3.2

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<212> DNA

<213> Influenza A virus

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<212> DNA

<213> Influenza A virus

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<212> PRT  
<213> Influenza A virus

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Leu Asp Arg Leu Arg Arg Asp Gln Lys Ser Leu Arg Gly Arg Gly Ser  
35 40 45

Thr Leu Gly Leu Asn Ile Glu Thr Ala Thr Arg Val Gly Lys Gln Ile  
50 55 60

Val Glu Arg Ile Leu Lys Glu Glu Ser Asp Glu Ala Leu Lys Met Thr  
65 70 75 80

Met Ala Ser Ala Pro Ala Ser Arg Tyr Leu Thr Asp Met Thr Ile Glu  
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Glu Met Ser Arg Asp Trp Phe Met Leu Met Pro Lys Gln Lys Val Ala  
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Gly Pro Leu Cys Ile Arg Met Asp Gln Ala Ile Met Asp Lys Asn Ile  
115 120 125

Ile Leu Lys Ala Asn Phe Ser Val Ile Phe Asp Arg Leu Glu Thr Leu  
130 135 140

Ile Leu Leu Arg Ala Phe Thr Glu Glu Gly Ala Ile Val Gly Glu Ile  
145 150 155 160

Ser Pro Leu Pro Ser Leu Pro Gly His Thr Asn Glu Asp Val Lys Asn  
165 170 175

Ala Ile Gly Val Leu Ile Gly Gly Leu Glu Trp Asn Asp Asn Thr Val  
180 185 190

Arg Val Ser Lys Thr Leu Gln Arg Phe Ala Trp Arg Ser Ser Asn Glu  
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<212> PRT  
<213> Influenza A virus

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35 40 45

Val Met Arg Met Gly Asp Leu His Ser Leu Gln Asn Arg Asn Gly Lys  
50 55 60

Trp Arg Glu Gln Leu Gly Gln Lys Phe Glu Glu Ile Arg Trp Leu Ile  
65 70 75 80

Glu Glu Val Arg His Lys Leu Lys Ile Thr Glu Asn Ser Phe Glu Gln  
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35 40 45

Thr Leu Gly Leu Asn Ile Glu Thr Ala Ile Arg Ala Gly Lys Gln Ile  
50 55 60

Val Glu Arg Ile Leu Lys Glu Glu Ser Asp Glu Ala Leu Lys Met Thr  
65 70 75 80

Met Ala Ser Ala Pro Ala Ser Arg Tyr Leu Thr Asp Met Thr Ile Glu  
85 90 95

Glu Met Ser Arg Asp Trp Phe Met Leu Met Pro Lys Gln Lys Val Ala  
100 105 110

Gly Pro Leu Cys Ile Arg Met Asp Gln Ala Ile Met Asp Lys Ser Ile  
115 120 125

Ile Leu Lys Ala Asn Phe Ser Val Ile Phe Asp Arg Leu Glu Thr Leu  
130 135 140

Ile Leu Leu Arg Ala Phe Thr Glu Glu Gly Ala Ile Val Gly Glu Ile  
145 150 155 160

Ser Pro Leu Pro Ser Leu Pro Gly His Thr Asn Glu Asp Ile Lys Asn  
165 170 175

Ala Ile Gly Val Leu Ile Gly Gly Leu Glu Trp Asn Asn Asn Thr Val  
180 185 190

Arg Val Ser Lys Thr Leu Gln Arg Phe Ala Trp Arg Ser Ser Asn Glu  
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Thr Ile Arg Ser Glu Val  
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<212> PRT  
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Ser Lys Met Gln Leu Gly Ser Ser Ser Glu Asp Leu Asn Gly Ile Ile  
20 25 30

Thr Gln Phe Glu Ser Leu Lys Leu Tyr Arg Asp Ser Leu Gly Glu Ala  
35 40 45

Val Met Arg Met Gly Asp Leu His Ser Leu Gln Asn Arg Asn Gly Lys  
50 55 60

Trp Arg Glu Gln Leu Gly Gln Lys Phe Glu Glu Ile Arg Trp Leu Ile  
65 70 75 80

Glu Glu Val Arg His Arg Leu Lys Ile Thr Glu Asn Ser Phe Glu Gln  
85 90 95

Ile Thr Phe Met Gln Ala Leu Gln Leu Leu Leu Glu Val Glu Gln Glu  
100 105 110

Ile Arg Thr Phe Ser Phe Gln Leu Ile  
115 120